



**A Botanical-Based *International Healthcare Platform***

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## My Childhood in China (Late 1960's)



My Parents in Sichuan Agriculture College (1956)



The Miao Villages, Guizhou

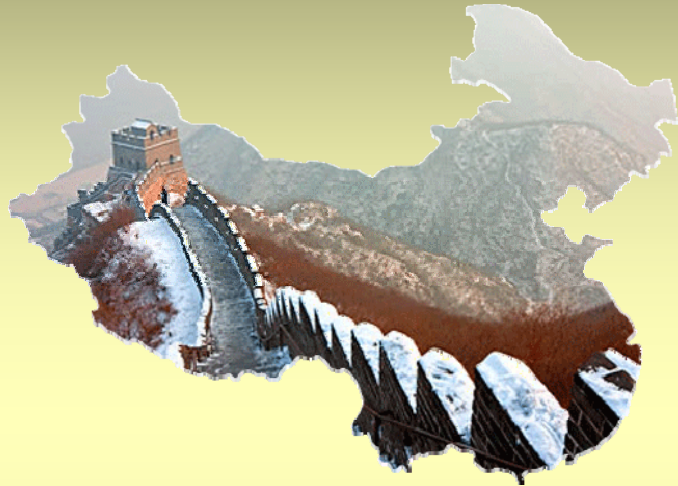


My Sister and I (1966)



The Huangguoshu Fall, Guizhou

# The Rise of China



2200 Years Ago (220 B.C.)



Now (Shanghai, 2009)

In the past 30 years:

- **Industrialized 3x the pace that the West did: 30 vs.100 years**
- **Poverty rate reduced from 60% to 10%: 500 million people lifted out of poverty**  
—“An accomplishment unparallel in human history” (Obama, Shanghai, Nov. 16, 2009)
- **1999-2009: annual growth rate at 10%, reaching GDP of \$4.8 trillion**
- **Becoming the 2<sup>nd</sup> largest economy in the world next year.**

# Evolution of Technology in China



220 BC

## Created in China

- **The Compass** (4<sup>th</sup> Century BC)
- **Papermaking** (2<sup>nd</sup> Century)
- **Gunpowder** (9<sup>th</sup> Century)
- **Printing** (9<sup>th</sup> Century)
- **Traditional Chinese Medicinal (TCM) (Written) System** (since 200 BC)



1979-1999

## Made/Copied in China

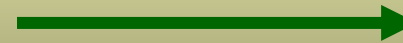


1999-2009

## Re-Created in China

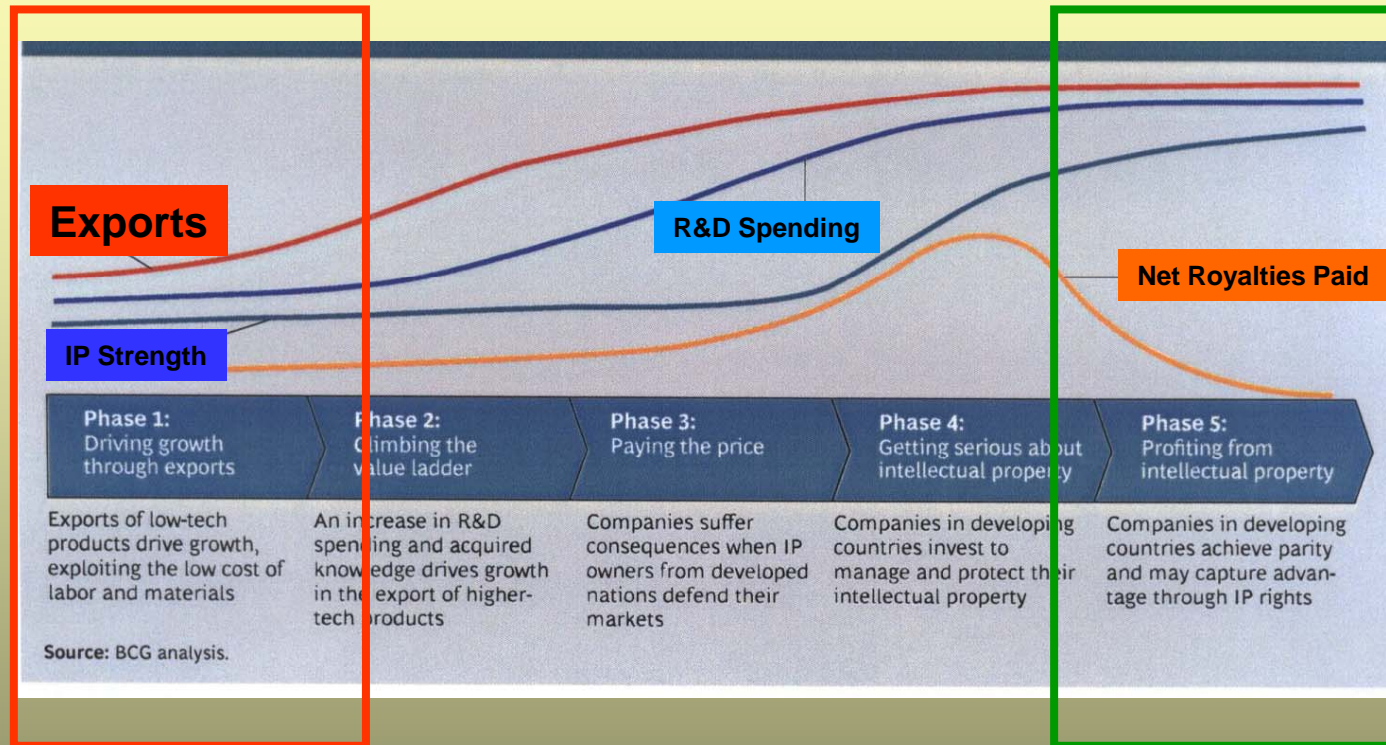
- **Energy Tech**
- **Information Tech**
- **Manufacturing Tech**
- **Agriculture Tech**

**Modernization of TCM**



# From “Made/Copied in China” to “Invented in China”

## China’s 5 Phases of Intellectual Property (IP) Development



- **Phase 1: Driving growth through export**
- **Phase 2: Climbing the value chain**
- **Phase 3: Paying the price**
- **Phase 4: Getting serious about intellectual property**
- **Phase 5: Profiting from intellectual property**

Source: Eckardt & Blaxill (2007) *Boston Consulting Group Report*.

# My Little Green Revolution in Silicon Valley





## Thrive with Sustainable Health!

- We should take a personal responsibility for our own health
- Respect our body as a natural holistic micro-ecosystem
- Take care of it so as to allow the body to sustain its intrinsic ability to maintain & restore health  
(much like how we should protect planet Earth for future generations).

Thus, we believe that

- “Sustainable health” is the body’s sustained ability to maintain & restore health so as to allow us to live a healthy, productive life for the rest of our lives.

# Botanicals—Global Trends & Market Drivers

- Globally there is a “green revolution” sweeping across developed countries & emerging economies (e.g., China, India, Brazil) demanding for better protection of planet Earth & more natural, healthier foods.



As in Dietary Supplement, Self-Medication & Functional Food:

- Increase in interest in botanical alternative to synthetic drugs
  - Complementary alternative medicine
  - Traditional medicinal systems (Traditional Chinese Medicine (TCM), Japan's Kampo Medicine (the Practice of TCM), India's Ayurveda and other Asian Systems)
- Aging population's increased health concerns in
  - Anti-Aging / Beauty / Sexual Functions
  - Weight Control / Obesity
  - Joint & Bone Health
  - Digestion / Allergy / Immunity
  - Cardiovascular Health / Diabetes
  - Cognition / Memory
- People w/ chronic conditions looking for safer & more cost-effective alternatives to prescription drugs
- Continued sedentary & hectic lifestyles of industrialized regions
- Parents avoiding giving their children drugs & over-processed foods
- Growing population concentrating on **health** instead of **disease**
- Educated & informed consumers' desire to participate in their own health care.





# Global Nutraceutical Market

Combined Market of the US, Western Europe, Japan & China:



Source: 2008 Nutraceutical Ingredient Report, SRI Consulting.



# “Silver Bullet” Drugs vs. Traditional Herbal Remedies

- Plants have evolved for 300 million years to survive environmental assault.
- 19<sup>th</sup> – early 20<sup>th</sup> century:
  - United States Pharmacopoeia (USP) included 50% “impure” multi-constituent plant medicine
  - Medical journals documented many case studies substantiating effectiveness of plant medicine

Medical sciences shifted from **complex molecular mixture** to **single molecules**

- Myth No. 1 “**Pure compound** is safer than **Complex plant mixture**”
  - Pure compounds have their own risks (may be 1000X –10,000X higher toxicity)
  - Medical errors in Americans (2006) 1.5 million per year
  - *British Medical Journal* (2003 327:881-882):
    - Adverse events from herbal remedies are “a tiny fraction of adverse events associated with conventional drugs.”
    - The risk of using herbal remedies is “fewer than synthetic drugs.”
- Myth No. 2 “**Single compound** is superior because more precise in dosing”
  - There is large variation in drug metabolism & medicinal plant is an inherently dilute mixture.
- Myth No. 3 “**Phytochemical** in medicinal plant is too dilute to have an effect”
  - Very low concentration of any 1 chemical will contribute to a chemical mixture’s activity
  - even if that chemical does not show activity when isolated.



Source: Kevin Spelman, Ph.D. (2009) *J. Am. Botanical Council* 84:Nov 2009-Jan 2010.

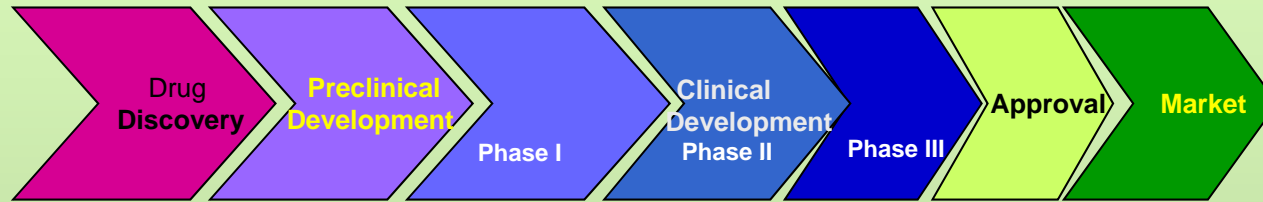
# China's Unique Competitive Edge In Botanical Healthcare Product Development



- 3000+ Year History of Using Botanicals for Healthcare
- Established a Sophisticated, Integrated Written System of Using
  - Functional foods 药食同源
  - Dietary supplements for Disease Treatment & Prevention
  - Botanical drugs
- Renaissance of Botanical-Based Medicine in China Market due to
  - Improved living standard and life style
  - Healthcare reform and education
  - Improved production process using modern technologies
- Modernization of Botanical Pharmaceutical Industry in Order to
  - Produce products in industrial scales
  - Enhance quality control to keep lots consistent
  - Large scale farming of critical botanical ingredients



# Healthcare Product Development Cycle



Cost \$\$\$

Typical Pharmaceutical

8-10 Years

\$ 800 M

## Nutritional Supplement

- EAS (Sports Nutrition)

## Product Development

6-8 months, 1 Product

## Market

Starting 1993 w/ \$14K  
Acquired by Abbott for \$320 M in 2005

- Cambridge Theranostics  
(Cardiovascular Supplement)

7 years, 1 product

Starting 2009

Burned \$17M

- Airborne Health  
(Flu Drink Mix)

5 years, 1 type products

Starting 1997

Sales reached \$100 M by 2006

## Natural Personal Care Products

- Tom's Maine

Started in Maine in 1970

Flagship Toothpaste in 1975

86% shares acquired by Colgate-Palmolive for \$100 M in 2006

- Burt's Bees

Started in Maine in 1984

Best Seller "Lip Balm" in 1991

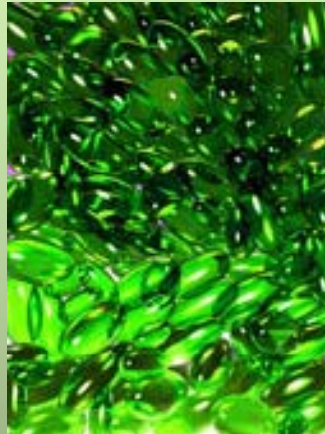
Acquired by Clorox for \$925 M in 2007



**Created in China**



**Made in USA**



**From China:**

- Identify successful products
- Obtain technical expertise
- Obtain clinical evidence
- Source high-quality ingredients
- Ensure sustainable production

**In the US:**

- Identify market needs & customer preferences
- Formulate products accordingly
- File for patent and trademark protection
- Contract manufacturing of products
- Design attractive packages
- Prepare marketing materials following regulatory rules



# Sourcing Botanical Products from China



**Forming Global Alliance Based on Geographic Locations & Cultures of Botanical Use**

- Qinghai-Tibet Plateau
- Guizhou Province
- Guangxi Province
- Yunnan Province
- Sichuan Province

**With Pristine Land, Great Biodiversity & Local Cultures of Using Natural Remedies for Promoting Longevity, Disease Prevention & Treatment for Centuries.**



## Wide Use of Soluble Dietary Fiber in Health Foods & Beverages

- **Soluble Dietary Fiber**

Dissolves readily in beverages (water, tea, milk, juices).



- **Appetite Suppressant**

Non-digestible fiber in the gut has the effect of increasing satiety.

- **Natural Low Glycemic Sweetener**

Oligofructose mildly sweetens but leaves no aftertaste.



- **Fat/Cream Substitute**

Inulin feels creamy in the mouth and enhances the texture of bread, ice cream, chocolate.

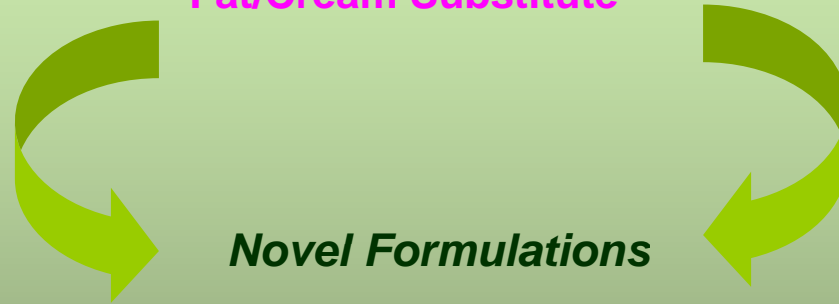


*Privileged & Confidential*

# Tasty Health Foods & Convenient Dietary Supplements for People w/ Special Needs



- Soluble Dietary Fiber
- Appetite Suppressant
- Low Glycemic Sweetner
- Fat/Cream Substitute



- People w/ High Blood Glucose Levels (Diabetes)
- People w/ Weight Management Problems (Obesity)
- People w/ High Cholesterol & Triglyceride Levels
- Children w/ Weak Immune System (Prone to Infection & Sickness)
- Aging Population w/ Bone & Joint Problems (Osteoporosis)





# The Flu Pandemic is Here to Stay



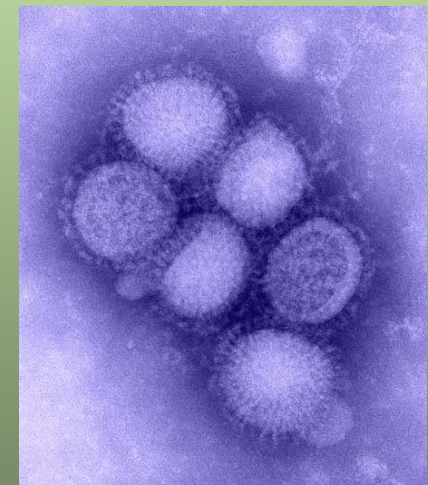
- **The Flu Pandemic is HERE! (Winter 2009-Spring 2010)**

“The fall resurgence of 2009-H1N1 influenza could produce infection of 30-50% of the U.S. population this fall and winter” *The White House Scientific Advisors' Report: 2009-H1N1.*”

- **President Obama declared National Emergency over H1N1 Swine Flu (Oct. 24, 2009)**

- Public's increasing resistance to vaccine injection for fear of side effects.
- Ineffectiveness of vaccine against mutated viral strains.
- Emergence of Tamiflu®-resistance H1N1 strains.
- Urgent need of effective & safe guard against broad spectrum of viruses

- **Ukrainian pandemic flu outbreak (Nov. 2009):** extremely contagious & lethal; symptoms dissimilar to H1N1; viral strain not genetically confirmed



H1N1 Influenza Virus

**Are There any Natural, Safe, & Effective Remedies for Protecting Us against all Kinds of Influenza Virus?**

**Let us Thrive with Sustainable Health !**